BIOS Update Instructions for Intel® Compute Card

This readme file includes BIOS update instructions for advanced users. If you need more complete step-by-step instructions on how to use each of these BIOS update methods, refer to **Compute Card BIOS Update Instructions**.

The following methods are available to update an Intel® Compute Card BIOS to the latest version. You only need to use one.

- Express BIOS Update
- F7 BIOS Flash Update
- UEFI Update
- Power Button Menu BIOS Update
- BIOS Recovery Update

Important Notes:

- Once the update process has started, **DO NOT POWER DOWN YOUR SYSTEM** before the update is complete. The update process will take up to 3 minutes.
- Downgrading the BIOS to an earlier version isn't recommended and might not be supported. An earlier BIOS version might not offer support for the latest processors, bug fixes, critical security updates, or support the latest board revisions currently being manufactured. **If you're trying to downgrade to a previous BIOS version and its Intel® ME Firmware version is older than that currently on the motherboard, then the downgrade is NOT supported.**
- If a BIOS update process is interrupted, your computer may not function properly. We recommend the process be done in an environment with a steady power supply (preferably with UPS).
- Before you start, record all BIOS settings that have been changed from default, so they can be restored after completing the BIOS update.

Express BIOS Update Instructions

With the Intel® Express BIOS Update utility, the BIOS update is initiated while in Windows*.

1. Download or transfer the Express BIOS update file to the target Intel Compute Card.
2. Double-click the *.MSI file to run the Express BIOS update.
3. Follow all prompts.

F7 BIOS Update Instructions

The F7 BIOS update option allows you to update the system BIOS during the boot process and before the operating system loads. **This option is accessible when the Compute Card is plugged into a compatible dock device that has a USB port.**

1. Download and save the Recovery BIOS (.BIO) file to a USB portable device.
2. Plug the USB device into a USB port of dock device.
3. Turn on (or restart) the Intel Compute Card.
4. During boot, when the F7 prompt is displayed, press F7 to enter the BIOS Flash Update tool.
5. Select the USB device and press Enter.
6. Select the .BIO file and press Enter.
7. Confirm you want to update the BIOS by pressing Enter.

8. Wait 2-5 minutes for the update to complete.
9. Remove the USB device.
10. Restart the computer.

UEFI update instructions

1. Download the UEFI Flash BIOS Update file.
2. Double-click the *.ZIP to extract its files.
3. Copy UefiFlash.efi and the .BIO file to the bootable USB flash drive.
4. Connect the USB drive to a port on the Intel NUC.
   a. Configure the BIOS of the target computer to boot to the EFI Shell:
   b. Press **F2** during start to enter BIOS setup.
   c. Go to **Advanced** > **Boot** > **Secure Boot.**
   d. Disable Secure Boot, if enabled.
   e. Go to **Advanced** > **Boot** > **Boot Configuration.**
   f. In the Boot Devices pane, enable **Internal UEFI Shell.**
   g. Press **F10** to save changes and exit BIOS Setup.
5. Press **F10** during boot to open the Boot Menu.
6. Select **UEFI: Built-in EFI Shell.**
7. Change the current directory to the USB flash drive by entering the command fsX: where X is the drive number of the USB flash drive from the device mapping list. Example: if your USB drive is fs3, then type fs3: and press enter.
8. At the command prompt, type UefiFlash.efi XXX.BIO, where XXX.BIO is the filename of the .BIO file and press Enter.
9. Press **Y** to begin the update.
10. Wait for the BIOS update to complete.
11. The computer will restart when finished.

After the update is complete, set the BIOS back to original settings:
1. Press **F2** during start to enter BIOS setup.
2. Go to **Advanced** > **Boot** > **Boot Configuration**.
3. In the Boot Devices pane, disable **Internal UEFI Shell.**
4. Go to **Advanced** > **Boot** > **Secure Boot.**
5. Enable Secure Boot, if it was originally enabled.
6. Press **F10** to save changes and exit BIOS Setup.

Power Button Menu BIOS Update Instructions

The Power Button Menu Update allows you to update the system BIOS during the boot process and before the operating system loads. **The Power Button menu option is accessible when the Compute Card is plugged into a compatible dock device that has a power button and a USB port.**

1. Download and save the BIOS update (.BIO) file to a portable USB device.
2. Plug the USB device into a USB port of the dock device when it's turned off (not in Hibernate or Sleep mode). If you're using a USB keyboard/mouse, you'll need a multi-port USB hub.
3. Press the power button and hold it down for three seconds. Release it before the four-second shutdown override.
4. The Power Button Menu appears.
5. Press **F7** to perform a BIOS update.
6. Select the USB device from the media list and press Enter.
7. Select the .BIO file and press Enter
8. Confirm you want to update the BIOS by pressing Enter.
9. Wait for the update to complete.
10. Restart the computer.

BIOS Recovery Update Instructions

In the unlikely event that a BIOS update is interrupted, it's possible the BIOS might be left in an unusable state. Performing a BIOS Recovery can resolve this problem. **This option is accessible when the Compute Card is plugged into a compatible dock device that has a power button and a USB port.**

1. Download and save the BIOS update (.BIO) file to a portable USB device.
2. Plug the USB device into a USB port of the dock device when it's turned off (not in Hibernate or Sleep mode). If you're using a USB keyboard/mouse, you'll need a multi-port USB hub.
3. Press the power button and hold it down for three seconds. Release it before the four-second shutdown override.
4. The Power Button Menu appears.
5. Press **F4** to perform a BIOS Recovery.
6. Wait for the recovery process to complete.
7. The computer will either turn off when the recovery process is completed or it will prompt you to turn it off.
8. Remove the USB device.
9. Restart the computer.

To identify your current BIOS version:

1. Press **F2** during boot to enter BIOS setup.
2. The third segment of the BIOS ID string (a 4-digit number) is the current BIOS version.
3. Press F10 to exit BIOS.

Creating a Bootable USB Device
Refer to any of the following websites for tips on creating bootable USB devices. Intel is unable to assist with the creation of bootable devices.

- How to Boot from a USB Flash Drive
- Boot from USB Flash Drive

You can also search for additional resources on the web for creating bootable USB devices. Search on "How to create bootable USB drives".